

GILA RIVER BASIN

09469500 GILA RIVER BELOW COOLIDGE DAM, AZ

LOCATION--Lat 33°10'10", long 110°31'50", in SW_{1/4} sec. 17, T.3 S., R.18 E. (unsurveyed), Pinal County, Hydrologic Unit 15050100, on left bank 2,200 ft downstream from Coolidge Dam.

DRAINAGE AREA--12,886 mi².

PERIOD OF RECORD--July to Oct. 1899, Apr. 1900 to Mar. 1902, July to Sept. 1902, Dec. 1902 to Dec. 1904, Jan. to May 1905 (gage heights only), June to Nov. 1905; Aug. 1910 to Feb. 1911 (gage heights only); Apr. 1914 to current year. Published as "at San Carlos" 1899–1911, as "near San Carlos" 1914–26, and as "at Coolidge Dam" 1927–38.

REVISED RECORDS--WSP 629: 1915–16. WSP 1049: 1899–1904. WSP 1149: 19M), 1921, 1922(M), 1923, 1924(M). WSP 1283: Drainage area.

GAGE--Water-stage recorder and Parshall flume. Datum of gage is 2,309.33 ft above sea level. Prior to Feb. 5, 1911, nonrecording gage at various sites and datums upstream from mouth of San Carlos River. Apr. 29, 1914, to Mar. 8, 1937, water-stage recorder at various sites within 1 mi upstream from present site at different datums. Mar. 27, 1979 to Oct. 10, 1980, and since Oct. 4, 1983, supplementary water-stage recorder at site on left bank 1,000 ft upstream at datum 2,309.5 ft above sea level, used above discharges at approximately 2,000 ft³/s, maximum capacity of parshall flume.

REMARKS--Records good except for estimated daily discharges and those below 20 ft³/s, which are fair. Flow regulated by San Carlos Reservoir since Nov. 15, 1928. (See sta 09469000.) Record includes flow of Warm Springs, which enters between the dam and gage. Large diversions above San Carlos Reservoir for irrigation, metallurgical treatment of ore, and municipal supply; about 69,000 acres of land was irrigated, a considerable portion by pumping from ground water.

AVERAGE DISCHARGE (adjusted for storage in San Carlos Reservoir)--92 years (water years 1901, 1904, 1915–2003) 394 ft³/s, 285,500 acre-ft/yr; median of yearly mean discharges, 228 ft³/s, 165,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD--1914–28: Maximum discharge, 130,000 ft³/s Jan. 20, 1916, estimated on basis of peak discharge near Solomon and at Kelvin; no flow at times.

1928–2000: Maximum discharge, 32,800 ft³/s Jan. 20, 21, 1993 from calculated discharge over Coolidge Dam; no flow at times prior to 1938; minimum daily since 1938, 0.18 ft³/s Oct. 5–9 and 19–21, 2000.

EXTREMES FOR CURRENT YEAR--Maximum daily discharge, 487 ft³/s Apr. 23–25; minimum daily discharge, 0.42 ft³/s Nov. 4 and Nov. 9–11.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2003 TO SEPTEMBER 2004
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.1	0.59	0.70	1.1	132	150	330	259	2.1	1.1	0.95	108
2	1.1	0.59	0.81	1.1	132	150	330	248	2.0	1.1	1.0	108
3	0.95	0.53	0.81	30	132	155	313	213	2.0	1.1	1.2	108
4	0.96	0.42	0.81	47	132	167	303	194	2.0	1.1	72	108
5	1.0	0.91	0.81	72	132	189	335	194	1.9	1.1	172	108
6	0.90	0.78	0.81	85	132	216	374	223	1.7	1.3	104	108
7	0.91	0.59	0.81	151	137	235	374	248	1.7	1.3	104	108
8	1.1	0.50	92	190	142	294	385	285	1.7	1.4	104	108
9	0.86	0.42	127	135	143	311	400	306	1.5	1.5	104	107
10	0.81	0.42	124	109	146	284	400	305	1.3	1.3	104	107
11	0.81	0.42	124	97	146	258	400	352	e1.3	1.1	46	106
12	0.70	0.65	124	95	146	258	427	392	e1.3	0.94	4.0	106
13	0.59	0.84	124	91	150	259	456	391	e1.3	1.0	2.8	106
14	0.59	0.59	124	77	154	278	456	391	e1.3	1.3	1.7	106
15	0.59	0.59	122	80	154	308	456	391	1.3	0.95	1.6	73
16	0.59	0.59	122	84	154	321	457	334	1.2	0.92	71	56
17	0.64	0.59	122	85	155	322	459	301	1.1	0.81	111	43
18	0.81	0.59	122	85	156	322	459	301	1.1	0.81	166	55
19	0.81	0.59	122	85	156	322	459	301	1.1	0.81	198	55
20	0.81	0.59	100	94	156	322	473	301	1.1	0.81	199	54
21	0.81	0.59	85	102	156	322	484	287	1.1	0.81	199	54
22	0.81	0.59	85	102	156	322	485	275	1.1	0.89	199	54
23	0.81	0.59	85	102	151	333	487	275	1.1	0.87	201	54
24	0.81	0.59	85	117	148	337	487	275	1.1	0.92	206	54
25	0.81	0.59	85	131	148	324	487	135	1.2	0.81	206	54
26	0.59	0.59	85	132	148	348	412	59	1.1	0.78	206	54
27	0.59	0.59	85	132	148	333	368	50	1.1	0.81	206	31
28	0.59	0.59	34	132	150	333	335	41	1.2	0.82	206	1.7
29	0.59	0.59	1.2	132	150	359	296	40	1.3	0.93	154	67
30	0.59	0.59	1.1	132	---	362	277	19	1.2	0.81	108	113
31	0.59	---	1.1	132	---	338	---	2.5	---	0.81	108	---
TOTAL	24.22	17.69	2186.96	3040.2	4242	8832	12164	7388.5	41.5	31.01	3567.25	2374.7
MEAN	0.78	0.59	70.5	98.1	146	285	405	238	1.38	1.00	115	79.2
MAX	1.1	0.91	127	190	156	362	487	392	2.1	1.5	206	113
MIN	0.59	0.42	0.70	1.1	132	150	277	2.5	1.1	0.78	0.95	1.7
AC-FT	48	35	4340	6030	8410	17520	24130	14660	82	62	7080	4710

CAL YR 2003 TOTAL 29694.43 MEAN 81.4 MAX 410 MIN 0.42 AC-FT 58900
WTR YR 2004 TOTAL 43910.03 MEAN 120 MAX 487 MIN 0.42 AC-FT 87100

e Estimated